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A New Species of *Parastenocaris* (Harpacticoida)  
from a Sandy Beach of the Lake Hinuma\*

*With 2 Text-figures*

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(Communicated by T. UCHIDA)

**ABSTRACT** *Parastenocaris hinumaensis* n. sp. (Parastenocaridae, Harpacticoida) from the sandy beach of Lake Hinuma, Ibaraki Prefecture, is described. The new species is distinguished from the known species of the genus by the features of legs 3 and 4 in the male, and in the anal operculum in both sexes.

The following three species of Parastenocaridae have hitherto been recorded in fresh water from Japan: *Parastenocaris nipponensis* Chappuis 1955, *P. oshimaensis* Miura 1962 and *P. biwae* Miura 1969.

The writer has collected many interstitial harpacticoids in a sandy beach of Lake Hinuma, about 12 km. south from Mito City, Ibaraki Prefecture, during 1965 and 1968. Examining these samples, he could add one species, new to science, to the *Parastenocaris* fauna in Japan as described below.

*Parastenocaris hinumaensis* n. sp.

*Female* (Fig. 1): Length 0.374 mm., including furcal rami. Body cylindrical, vermiform and colourless. Nauplius eye entirely wanting. Hind margins of abdominal segments smooth both on the ventral and dorsal surfaces. Anal operculum slightly convex posteriorly, with a row of hairs on the outer margin. Furcal rami well developed, approximately two times as long as wide, with two setae in the middle, one on the inner edge and the other on the ventral surface, and one stout semicaudal seta and one long caudal seta, approximately three times as long as the furcal rami (Fig. 1, h). First antenna consists of seven segments, 2nd segment with three setae, 4th one furnished with one sensitive stick and one seta on the terminal tip, and the terminal one with one sensitive stick apically (Fig. 1, a). Exopodite of 2nd antenna consists of one segment with one minute apical seta (Fig. 1, f).

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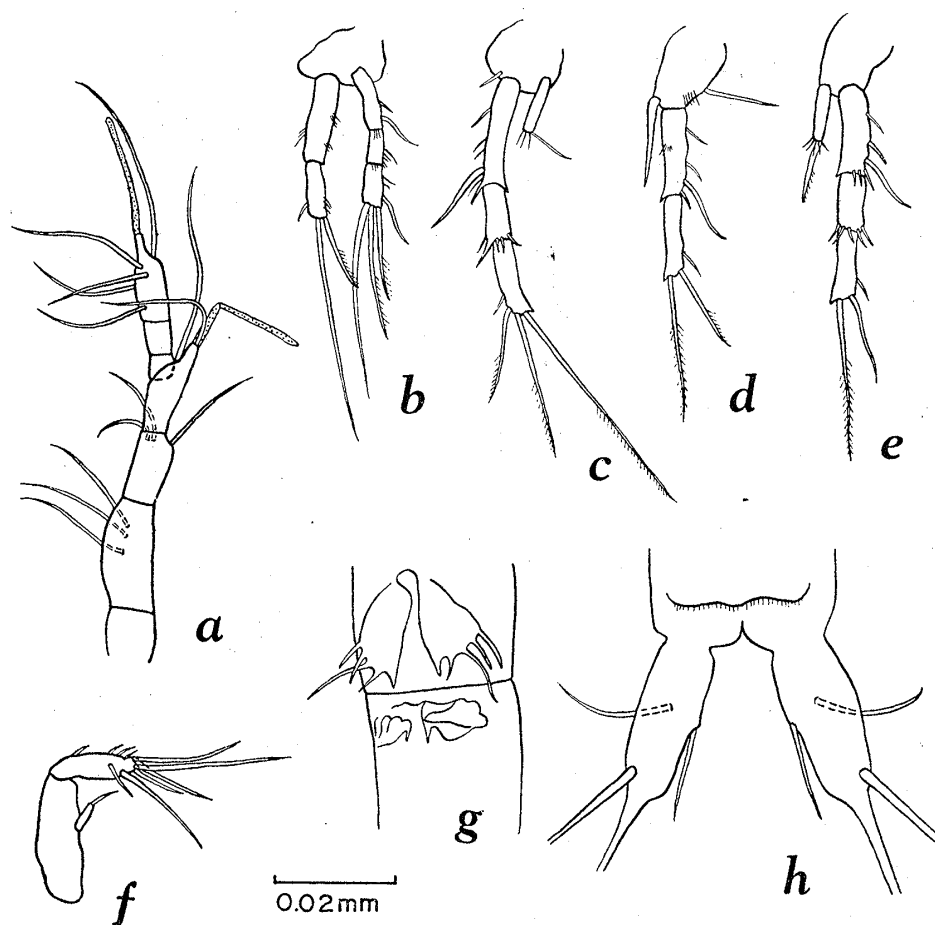


Fig. 1. *Parastenocaris ainumaensis* n. sp., female; a, first antenna; b, leg 1; c, leg 2; d, leg 3; e, leg 4; f, second antenna; g, leg 5 and receptaculum seminis; h, anal operculum and furcal rami.

Leg 1 is three-segmented in exopodite, the 1st segment with one stout seta and one little spine on the outer side. The 2nd segment has a few hairs on the outer margin. The 3rd segment bears three apical setae and one stout seta on the outer side. The endopodite is two-segmented, the 1st segment reaching to the distal end of the 2nd segment of the exopodite and with three groups of minute hairs, and the 2nd segment with two apical setae, the inner one very long (Fig. 1, b). Leg 2 is also three-segmented in the exopodite, the 1st of which is longer than the others, the terminal one with three apical setae. The endopodite is one-segmented, having one short seta and three hairs apically (Fig. 1, c). The endopodite of leg 3 is one-segmented and sword-shaped (Fig. 1, d). Leg 4 is three-segmented in exopodite, the terminal segment with two apical setae. The endopodite consists of one segment with an apical seta (Fig. 1, e). Leg 5 is triangular, with one spine and four setae, shorter than those of the male (Fig. 1, g).

*Male* (Fig. 2): Length 0.349 mm., including furcal rami. Body shape same

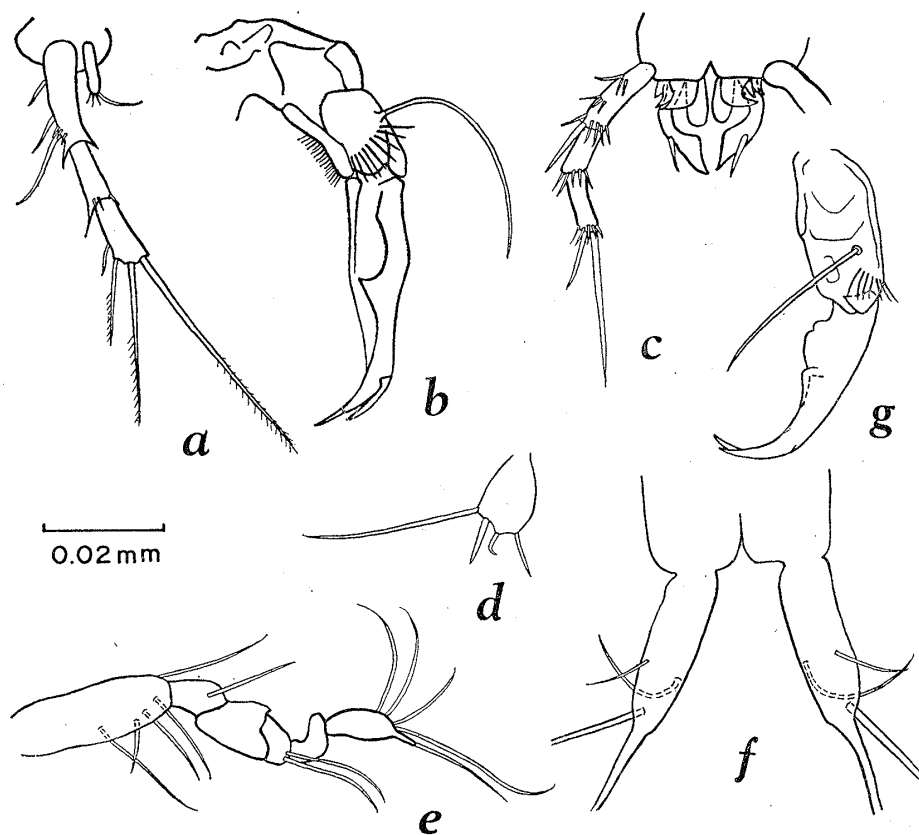


Fig. 2. *Parastenocaris hinumaensis* n. sp., male; a, leg 2; b, leg 3; c, leg 4; d, leg 5; e, first antenna; f, furcal rami, ventral view; g, leg 3, lateral view.

as that of the female. First antenna remarkably different from that of the female, prehensile and geniculate (Fig. 2, e). Leg 1 and 2 similar to those of the female. Leg 3 wanting endopodite, very modified, protopodite with two rows of minute hairs and a long seta near at the distal portion as shown in Fig. 2, b and g. Exopodite furnished with one conical projection on the middle portion and two fingerlike distal processes. Leg 4 three-segmented in exopodite, the 1st segment with one long outer spine and the last bearing two setae on the distal end. Endopodite consists of two elements as shown in Fig. 2, c. Leg 5 quadrate and flattened, having one long slender seta on the outer distal corner, one little spine on the inner margin and two spines on the terminal surface (Fig. 2, d).

*Type-specimens*: Holotype, female, Jan. 10, 1967; allotype, male, Feb. 22, 1967; paratypes, males and females. Type-specimens are all deposited in the collection of the Hinuma Hydrobiological Station, Ibaraki University.

*Type-locality*: The interstitial water (W. T. 6.2°C, pH 6.6) in a sandy beach at Oyazawa of the Lake Hinuma, Ibaraki Prefecture.

*Remarks*: Though this new species seems to belong to the *brevipes*-group

by Lang (1948) and most resembles *P. starretti* Pennak, *biwae* Miura and *brevipes* Kessler, it is distinguished from those three species by the following point: the feature of leg 3 in the male, which is different in the position of a conical projection as shown in Fig. 2, b; the endopodite of leg 4 in the male, having a hyaline thumb-shaped process at its base as shown in Fig. 2, c; and the feature of leg 5 in both sexes.

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